

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

Claim 1 has been amended to clarify the recitation of the main body, which includes the block body and the flow sensor. It is respectfully submitted that this amendment is clarifying in nature only.

In addition, claim 1 has been amended to recite a flow regulating valve which regulates the flow rate of the fluid running through the path (in the block body), along the lines formerly recited in now canceled claims 3 and 7.

Still further, claim 1 has been amended to clarify that the flow-regulating valve is mounted on an upper surface of the block body and the flow sensor is mounted on a surface of the block body which is different from the upper surface of the block body, as supported by the disclosure in the specification at, for example, page 9, lines 12-15, and page 10, lines 20-33.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered under 37 CFR 1.116.

THE PRIOR ART REJECTION

Claims 1-8 were rejected under 35 USC 103 as being obvious in view of the combination of JP 2592418 and JP 09-089618. This rejection, however, is respectfully traversed.

According to the present invention as recited in amended independent claim 1, a flow detector is provided which comprises a main body including: (i) a block body, which has an inlet and an outlet and which forms a given path, and (ii) a flow sensor which is attached to the block body to detect a flow rate of a fluid running through the path; a circuit board having mounted thereon an electric circuit which measures the flow rate of the fluid running through the path by using the flow sensor; and a flow regulating valve which regulates the flow rate of the fluid running through the path.

As recited in claim 1, the main body and the circuit board are accommodated in a rectangular parallelepiped or cubic housing, which is fixable to a given panel. In addition, as recited in amended independent claim 1, the flow-regulating valve is mounted on an upper surface of the block body and the flow sensor is mounted on a surface of the block body which is different from the upper surface of the block body. Still further, as recited in claim 1 an indicator and an operation switch are provided in a front surface portion of the housing that is exposed at a front surface of the given panel when the

housing is fixed to the given panel. And as recited in claim 1, the inlet and the outlet of the path are provided in a back surface portion of the housing, and a terminal for external connection of the circuit board is provided in the back surface portion of the housing.

With this structure of the claimed present invention, it is possible to provide a flow detector and a flow controller that enables a plurality of flow detectors and flow controllers to be disposed close to each other.

In particular, according to claim 1, the flow-regulating valve is mounted on a upper surface of the block body and the flow sensor is mounted on a surface of the block body which is different from the upper surface of the block body. With this structure, the flow-regulating valve and the flow sensor can be disposed close to each other without interfering with each other even if the sensor bracket for installing the flow sensor has a large diameter, or if the flow-regulating valve has a base with a large diameter. As a result, the flow detector and flow controller can be compact.

It is respectfully submitted that JP 2592418 and JP 09-089618, even if they were combinable in the manner suggested by the Examiner, do not disclose, teach or suggest the structure of the present invention as recited in amended independent claim 1.

Accordingly, it is respectfully submitted independent claim 1 and claims 2, 4 and 5 depending therefrom clearly patentably distinguish over JP 2592418 and JP 09-089618 under 35 USC 103.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

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